

Nothing is so critical as to place the life of a Marine at risk in a training situation.

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The reputation of the Marine Corps is based upon our tenacity. skill in combat, and readiness to fight our country's battles. This reputation is the result of hard work, effective training, and success in combat. It has come at considerable cost: the blood of Marines spilled in combat across the globe. We grudgingly endure these losses because risk is inherent in war. We assess it, we plan for it, and we avoid or minimize it as much as possible, avoiding obstacles, using preparatory fires to reduce the threat, wearing force protection equipment such as helmets, flak

jackets and gas masks. Unfortunately, our peacetime risk management activities are sometimes less proactive.

Leaders at all levels have historically been reluctant to halt an operation or training event due to safety concerns. Junior Marines have been even more hesitant to stop an evolution that "just does not feel right." It takes a bold individual to recommend to the commander that we cancel or halt an evolution. Yet, this aggressive and thoughtful spirit is just the sort of attitude that we expect from Marines in combat.

Each year, over 100 Marines die in mishaps and over 2000 are separated due to physical disabilities. We must reduce these losses. Noncombat casualties diminish our readiness, our cohesion and our camaraderie. Our Corps needs a cultural change and this change must be profound. We will effect this change through leadership.

To lead that cultural change, I have established the Marine Corps Executive Safety Board (ESB). On 15 June 2000 the Assistant Commandant hosted the first meeting of the ESB in Washington DC. The ESB consists of commanding generals from our operational commands, major bases and supporting organizations. Their mission is to provide safety policy and guidance for our Corps. The Marine Corps Safety Campaign Plan was developed by the ESB and will set us on a course to reduce mishaps while increasing readiness and combat effectiveness.

The key to achieving our safety goals is to instill in our Corps the idea that Marines, of all ranks, must maintain a constant vigil against unsafe actions, practices or situations. They must be willing to voice their concerns. Supporting this attitude shift is a commitment to make

accountability the cornerstone of our efforts as we seek to revolutionize our approach to safety. Responsibility for safety belongs to every Marine.

To begin implementation of this cultural shift, the following actions will be taken, effective immediately:

- All personal safety equipment and seat belt requirements will be enforced both on and off base and Marines will be disciplined for failure to utilize required safety equipment.
- Within seven days of any Class A mishap, all commanding officers shall brief their commanding generals on the circumstances surrounding the mishap and the steps taken to prevent recurrence.
- The executive officer or deputy commander within each command is responsible for the execution of safety policy.
   Fitness reports will include mandatory comments on the executive officer's and deputy commander's fulfillment of safety responsibilities.
- In order to better integrate operations and safety, we will reenergize our efforts to incorporate Operational Risk Management (ORM) throughout our Corps. ORM will be taught at all formal schools and that training will be reinforced throughout the length of the school. At a minimum, commanders should ask two questions during any brief: "What are the risks of this event or course of action?" and, "What have we done to reduce those risks to an acceptable level?" All Marines should ask themselves the same questions when beginning any off duty activity.

Safety and operations must intertwine in such a manner that risk management and safety are a part of the planning and execution of all missions, exercises, and daily evolutions. Risk awareness must be increased through aggressive training. Safety must become an enduring principle for the Marine Corps.

I am committed to halting the accidental deaths and injuries in the Marine Corps. To that end, commanders must embrace the idea that safety is an element of force protection. By doing so, we will save the lives of our Marines and increase the combat readiness of the Corps. Both are worthy goals.

James L. Jones

General, U.S. Marine Corps Commandant of the Marine Corps

#### Introduction

"The Commandant of the Marine Corps is responsible for issuing safety instructions which are necessary or appropriate in connection with matters under his technical direction. Commanders are responsible for compliance with prescribed safety instructions and with the elimination or control of all hazards within their commands. Safety precautions and procedures are to be made readily available to all personnel and personnel concerned are to be instructed and drilled in their applicable portions. Where safety instructions are nonexistent or incomplete, necessary safety instructions will be issued and higher authority notified."

The Marine Corps Manual, Paragraph 1202, 3 May 99

The Marine Corps is an extremely lean force of highly trained professionals equipped with modern and valuable equipment. Both personnel and equipment are critical resources required to meet the threats of the new millennium. Each year we lose the equivalent of a Marine Expeditionary Unit to on and off duty fatalities and injuries. Although the Marine Corps has maintained an aggressive safety presence in all aspects of our operations, our mishap and fatality rates remain the highest of any of the services. This is not acceptable!

Over the last ten years, the Marine Corps has experienced an average loss of 100 active duty fatalities annually. Traffic mishaps are the leading killers of Marines averaging 56 deaths per year. Separations resulting from training and operational injuries resulting in physical disability create a huge drain on the Marine Corps in terms of manpower and costs. We must

continue to take significant action, focused on preserving our forces and equipment, to reduce our

mishap rate. Despite a relatively consistent mishap rate for the past several years, mishap costs are increasing at an average rate of nearly 10% per year. Our personnel are our most important asset and deserve a proactive preventive focus.



Training

Nothing is so critical as to place the life of a Marine at risk in a training situation.

As we proceed into the 21st century, we must continue to strike a balance between realistic training and operational safety. Qualified safety personnel, both in and out of uniform, possess the experience, training and management tools that enable them to identify unsafe situations and make recommendations to eliminate hazardous conditions or acts. Commanders should establish an environment in which force protection is inclusive of safety when planning operations.

Based on the frequency of mishaps adversely affecting our Marines, Sailors, family members, and civilian employees, the Marine Corps' safety efforts require a focus on awareness and intervention at the highest levels. Preventable mishaps and disregard for safety standards erode our reputation and readiness. By focusing on eliminating the yearly loss of the equivalent of a MEU to fatal mishaps and physically disabling injuries, our Corps can significantly impact readiness. We must promote a comprehensive force protection culture that enhances operational capability while protecting and conserving our personnel.

# **Accountability**

Marines have always been held accountable for their actions. Commanders are always held accountable for everything their command accomplishes or fails to accomplish. No additional regulations, orders, or mandates will carry the Marine Corps through a revolution in our approach to safety. We must inherently understand the basic needs for operating safely and apply that understanding in every decision and act. In order to succeed, we require

order to succeed, we require accountability at every level-from the individual Marine up through the highest-level commanders.

Effective immediately, the executive officer or deputy commander within each command is responsible for the execution of safety policy. Fitness reports will include mandatory comments on the executive officer's and deputy commander's fulfillment of safety responsibilities. All Marines shall be held accountable for their actions, both on and off base. Rules and regulations that govern on-base conduct will be equally applied to off-base conduct.

Marines will be disciplined for failure to utilize required safety equipment when off duty or off base, such as failing to wear seatbelts and not using helmets or reflective vests while operating motorcycles.

# Leadership

As in all endeavors, the success of any safety program relies on sound, focused, and diligent leadership. Nothing is more critical in a training environment or operational exercise than the safe return of its participants and equipment. While commanders may be forced to accept damage to equipment resulting from training and experimentation, loss of life and injury remains unacceptable in peacetime. Within seven days of any Class A mishap, all Commanding Officers shall brief their Commanding General on the circumstances surrounding the mishap, and what steps were taken to prevent recurrence.

The Commandant of the Marine Corps will receive an executive summary for every Class A mishap following the release of the mishap investigation report. Additionally, the following two initiatives are being implemented as part of a proactive approach to eliminating potential mishaps and injuries.



**Executive Safety Board Members** 



#### Executive Safety Board (ESB)

The Commandant of the Marine Corps (CMC) convened an Executive Safety Board, chaired by the Assistant Commandant of the Marine Corps (ACMC) to provide safety policy and guidance to our Corps. This will enhance unit and individual readiness by reducing on and off duty mishaps, and minimizing injuries and fatalities to our Marines, Sailors, family members and civilian personnel. The ESB met for the first time during the 3d Qtr of FY00 to discuss ways to promote safety into the next century. The ACMC directs appropriate staff sections to assist in the development and implementation of policies and programs recommended by the ESB. The board will meet at the direction of the ACMC and consists of the following:

- ☐ Commanders, Marine Forces Atlantic, Pacific, and Reserves
- ☐ Commanding Generals, I, II, and III Marine Expeditionary Forces
- ☐ Commanding General, Marine Corps Material Command
- ☐ Commanding General, Marine Corps Recruiting Command
- ☐ Commanders, Marine Corps Air Bases East and West
- ☐ Commanding Generals, Marine Corps Bases Camp Pendleton and Camp Lejeune
- ☐ Commanding General, MCCDC
- ☐ Sergeant Major of the Marine Corps
- ☐ Commander, Naval Safety Center (Ex Officio).

#### **Executive Safety Board Tasks**

- ✓ Establish policies and recommend proposals to improve safety programs and enhance readiness.
- ✓ Set goals and publish the Marine Corps Safety Campaign Plan.
- ✓ Identify shortfalls in safety programs and training budgets.

#### Safety Councils.

Requirements exist for safety councils at the installation and unit levels. While use of local councils varies between units and installations, they serve as a forum to highlight emerging and ongoing safety concerns that, when brought to the attention of the commander, can have a regional or Corps wide implication. To this end, Commanders, Marine Forces Atlantic, Pacific and Reserves will create a regional safety council that will serve as a conduit for ideas, programs and needs developed at the local level that warrant Corps level attention. These regional councils will provide input, feedback and ideas to the ESB pertaining to Marine Corps safety programs.

# Structure And Staffing

Identification of the requirement for safety personnel staffing remains an ongoing challenge. Requirements exist for safety billets based on organizational and installation population, however only the MARFORs.

installations, and flying units have safety billets in their Tables of Organizations (T/Os). We must identify and establish full time safety billets from the MEF down to the battalion and non-flying squadron level, filling them with safety trained personnel. The objective is



to make safety and risk management-trained personnel available to each unit in order to facilitate their mishap prevention efforts and operational readiness.

Safety professionals must be trained in a variety of safety-related disciplines and serve in designated billets for a specific tour length to meet the requirements of the various safety programs. Commanders shall ensure personnel assigned to safety billets remain in the billet for at least one year to provide a level of continuity and consistency while taking advantage of their technical training.

#### **Structure And Staffing Goals**

During FY01 review and revise T/Os to ensure the proper grade and number of safety billets are established for each unit.

# **Training**

Specific safety courses exist for new full time and collateral safety officers and managers, safety

specialists, personnel responsible for investigating mishaps, squadron aviation safety officers, executive officers, and commanding officers. Specialty Occupational Safety and Health (OSH) training courses are also available. Personnel assigned to safety billets must be afforded the opportunity to attend requisite training. Current trends indicate that over 50% of those assigned specific safety billets have had no formal safety or mishap investigation training. We must seek innovative solutions to the challenge of providing appropriate training to our safety professionals.



### **Training Goals**

- ☐ All personnel assigned to safety billets complete basic required safety training within 90 days of assignment.
- ☐ All supervisors attend supervisor safety training required by MCO P5100.8F within 90 days of assignment.

"Sizing up opponents to determine victory, assessing dangers and distances is the proper course of action for military leaders." – Sun Tzu, The Art of War

# Operational Risk Management (ORM)

ORM is the process of identifying, assessing and controlling risks arising from operational factors and making decisions that balance risk costs with mission benefits. ORM is not a safety program but a risk management process. Safety is a by-product of its application. As noted in Marine Corps Doctrinal Publication 1, Warfighting, "Risk is inherent in war and is involved in every mission." To ensure enhanced mission accomplishment while reducing risk, the Marine Corps is continuing to incorporate the ORM process into all training and operations. ORM is a thought process that provides operators and planners at all levels an effective method for maintaining readiness in peacetime and ensures readiness for combat without infringing upon the prerogatives of the Commander. At its heart, ORM increases the ability to make informal yet informed decisions by answering the question, "Do the benefits outweigh the risks?" The ORM process is based on the following four principles:

- ☐ Accept risk when benefits outweigh the cost.
- ☐ Accept no unnecessary risk.
- ☐ Anticipate and manage risk through planning.
- ☐ Make risk decisions at the proper level.

ORM is a five-step process: Identify Hazards, Assess Hazards, Make Risk Decisions, Implement Controls and Supervise.

Commanders must consistently apply the ORM process and adhere to the risk management principles. By rigorously using the ORM process in the planning stage, we have the greatest potential for identifying hazards and reducing risk, thereby increasing readiness and improving potential to accomplish the mission with the fewest possible losses.



To better integrate operations and safety, we will reenergize our efforts to incorporate Operational Risk Management (ORM) throughout our Corps. ORM shall be taught at all formal schools and that training will be reinforced throughout the length of the school. The Safety Division and Naval Safety Center can provide near term training. At a minimum, Commanders should ask two questions during any brief: "What are the risks of this event or course of action?" and, "What have you done to reduce those risks to an acceptable level?" All Marines should ask themselves the same questions when beginning any off duty activity.

#### Operational Risk Management Goals

- ✓ All Marines will receive ORM training by end of FY01.
- ✓ Apply ORM in all planning and execution on and off duty.

If we always do what we always have done, we will always get what we always got.

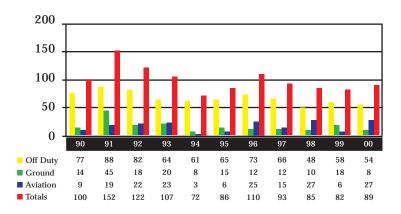
#### Awards And Incentives

Safety awards and incentives exist for individuals and units at the local level. Awards also exist from headquarters and outside agencies for the following: Aviation Mishap Free Flight Time Award, CNO Safety Award, DON Shore Safety Awards Program, and GEICO Awards.

The Marine Corps must seek avenues to better highlight and award safety accomplishments. The Safety Division will draft a new MCO on safety awards with criteria for individual, installation, section and unit awards. The MCO will also include minimum criteria for major subordinate commands to establish programs for safety awards and incentives.

#### MISHAP STATISTICS

Mishaps are divided into two categories, on and off duty. On duty mishaps are further broken down into ground, aviation and industrial mishaps while off duty mishaps are further divided into private motor vehicle, recreational and other mishaps.



\* Figures as of August 2000.

#### **USMC Mishap Fatalities**

## On Duty - Aviation

Five-Year Statistics. From FY 95-99, Marine Corps Aviation averaged 12 Class A Flight Mishaps and 16 fatalities per year with a mishap rate of 3.20. This rate is over twice that of the Navy (1.58), Air Force (1.33), and the Army (1.27) during the same period. Human factors were the primary causal factors for Class A flight mishaps in over 66% of these mishaps. Maintenance was the primary factor in about 26% of the Class A flight mishaps. Additionally, Marine aviation averaged 4 Class B and 16 Class C flight mishaps per year between FY 95-99.

Future Endeavors. Future endeavors to reduce these trends are discussed in the Marine Aviation Campaign Plan. These include timeto-train, Operational Risk Management, the flight hour program, simulation, aviation manning (officer and enlisted), aircraft material condition, and operations, training & readiness. The Joint Service Safety Chiefs advocate adopting Flight Operations Quality Assurance - Military (FOQA-M), a systematic software analysis of information from the flight data recorder to improve training, reduce maintenance costs and to enhance aircraft readiness.

#### On Duty - Ground

**Five-Year Statistics.** Of the mishaps reported from FY95-99, the Marine Corps averaged over 338 Class A, B, and C mishaps annually at a cost of \$106 million. Operational fatalities averaged 13 per year for the same period. More than one-third of all on duty fatalities in the past five years involved vehicles, both tactical (23) and commercial (5). HMMWVs and 5-ton trucks accounted for more than half of tactical vehicular fatalities.

Speed and lack of wearing protective equipment and devices were major casual factors of vehicular mishaps and fatalities. Field training fatalities varied greatly leaving little for trend identification. Live fire mishaps, drowning, rough terrain operations, and parachute operations

accounted for roughly one sixth of all training fatalities with an average of slightly more than one a year. Ordnance related mishaps, those involving explosive ordnance operations, negligent discharges,



and weapons mishandling averaged slightly more than one fatality per year. There was no clear specific trend in ordnance related mishaps. Virtually every type of individual and crew served weapon has contributed to a Marine Corps injury in each of the last five years. Of all mishaps, ninety-five percent were attributed to individual and supervisory factors while the remaining five percent were the result of mechanical failure or equipment design.

**Future Endeavors.** Greater attention must be paid to our on duty activities. Units and individuals must understand and incorporate a "safety mentality" in every aspect of their duties. Safety cannot be separated from our operational tasks. Initiatives that convince Marines of the importance of such imperatives as reducing their speed, wearing safety belts, and proper risk management must come quickly, be far reaching, and pervade every aspect of our thought processes.

#### On Duty - Industrial

*Five-Year Statistics.* Lost time industrial cases — those when civil service workers lose time after the day of injury or illness - steadily decreased by 26% in the past five years. These were an average of 774 lost time cases per year during FY95-99. The FY95 baseline was 5.68 cases per 100 workers while the rate for FY99 was 4.2 cases per 100 workers. This rate is double the USN and Federal agencies

average lost time case rates. There was an average of 1221 total injury/illness cases per year for FY 95-99. The total cases rates decreased from 8.90 cases per 100 workers in FY95 to 6.31 cases per 100 workers in FY99 - 29%.

Compensation costs for

the same period

decreased slightly from \$19.2M to 18.9M. The top five causes of injuries and illnesses were: (1) traumatic multiple strain; (2) traumatic back sprain; (3) bruises, contusions, and abrasion; (4) traumatic disability and (5) cuts and lacerations. Reductions in occupational mishaps are attributed to an increased emphasis on accident prevention programs and compensation claims management.

**Future Endeavors.** While the trend in industrial safety has decreased, there is still more room for improvement. Trends from the past have no impact in possibilities for the future. Continued emphasis on mishap prevention and safety programs will ensure the trend continue in the proper direction.

#### On Duty Mishap Reduction Goals

- ✓ Reduce the number of on duty Class A and B mishaps by 25% during FY01; another 25% by FY06.
- ✓ Reduce the overall occurrence of injuries to our civilian employees by 15% per year for five years.

#### Off Duty - Recreational

*Five-Year Statistics.* The average number of recreational mishaps reported from FY95-99 is 308 for each full year of mishap reporting. The mishaps reported for FY99 was almost 10% less than this average. The fatality numbers show a downward trend from FY96-99, 16 versus 7. However, these small numbers may not truly reflect that downward trends in mishaps or fatalities are occurring.

The deaths for recreational mishaps during FY95-99 were caused by drowning, gunshots, falls, alcohol poisoning, and while working on private motor vehicles. In each fatality, poor personal decision-making was a significant factor. The largest number of these fatalities resulted from drowning which occurred either in high-risk situations, e.g., typhoon or hurricane conditions or were alcohol related. One was related to boating in which rough weather, an overloaded boat, and lack of a life jacket were contributing factors. Gun shot wounds produce the second highest number of off duty fatalities. In most of these, alcohol and poor weapons handling were contributing factors.

Future Endeavors. Just as we incorporate initiatives that will instill a "safety mentality" when working operationally, we must instill that same mentality during off duty time. Individual decisions made by Marines when off duty can and do impact unit readiness. The work hard, play hard mentality must be tempered with an understanding of the potential consequences. Numerous programs exist that are designed to reduce and prevent recreational mishaps. Ensuring that Marines are well informed is the best tool that we can provide them. We must focus on safety and risk management off duty as well as on.



Five-Year Statistics. There were 1308 mishaps during FY95-99 with 265 fatalities. The numbers and rates of injuries and fatalities showed a slight increasing trend from FY95-97, dropped dramatically in FY98, and then began to climb again. FY00 is on track for becoming the worst year for private motor vehicle (PMV) fatalities in the past 5 years. The most significant causal factors in mishaps and injuries in order of frequency are: (a) time of mishap - midnight to 0600; (b) failure to wear seat belts; (c) excessive speed; and (d) drug and alcohol impairment.

**Future Endeavors.** Our focus must be on education and prevention and this requires a fundamental change in thinking by all Marines. They must be convinced of the importance of sound and safe decision making when operating private motor vehicles. No regulation will change attitudes and decisions but training and repetitive emphasis will. Only when safety has been instilled in their mind will we make headway against these trends. Seatbelt use is absolutely essential to reduce our PMV fatalities.

#### Off Duty Mishap Reduction Goals

✓ Reduce FY01 traffic fatalities by 25% through enforcement of seatbelt use requirements and expansion of ORM and motorcycle operator training; another 25% by FY06.

#### Notes:

- Class A mishap. Fatality, loss of aircraft, permanent total disability, or \$1 million or more damage costs.
- ☐ Class B mishap. Permanent partial disability, inpatient hospitalization of three or more personnel, or damage costs of \$200,000 to less than \$1 million.
- □ Class C mishap. Lost work day case or damage costs of \$10.000 to less than \$200.000.
- ☐ Baseline year for mishap reduction goals is FY99.



